

## ABSTRACT

10 The present invention is directed, *inter alia*, to compositions and methods for treating, healing, or regeneration of ciliated epithelial structures, particularly those of mucosal membranes. In particular, the invention is directed to a method comprising topical administration of vitamin A (including retinoic acid) to ciliated epithelia structures, including, for example, the paranasal sinus mucosa, middle ear epithelium, and tracheal epithelium. In preferred embodiments the inventive methods are used in the context of surgery, and post-surgical healing and regeneration of epithelial and mucosal epithelial structures and cells.

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